

**Information Technology Management
Report of Action Team #2
Establish an ARS Information Technology Investment Review Board**

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Team Charge

To develop a charter and to propose membership for an Information Technology Investment Review Board (ITIRB) for ARS.

Background

The federal government is pursuing major changes in the way it manages investments and development of information technology (IT). The Office of Management and Budget (OMB) and the general Accounting Office (GAO) have responded to new Congressional mandates under the Information Technology Management Reform Act (ITMRA), also known as the Clinger-Cohen Act. It requires executive agencies to view every major IT decision primarily as a choice of where to invest scarce agency resources in terms of likely program outcomes. The Clinger-Cohen Act mandates improved management of IT projects with the expected result that the systems be delivered on time and will perform to expectations, and funds will have been efficiently and effectively spent. Agencies are required to establish Chief Information Officer (CIO) positions and an ITIRB composed of upper level managers to represent the integration of IT with mission programs at the agencies' highest level.

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Such a board has been established at the Department level of USDA called the Executive Information Technology Investment Review Board (EITIRB) and several USDA agencies already have functioning boards. Therefore, ARS needs to establish its own ITIRB. The approach of the team was to develop a simple charter and one that would be readily approved by the USDA.

Team Activities:

The team collected and reviewed other agencies' ITIRB charters including the Forest Service, the Natural Resources Conservation Service, the Farm Services Agency, and the Rural Development Agency. Also, a charter from the U.S. Department of Transportation was reviewed. Then the team developed a draft charter closely modeled after the USDA's ETIRB.

The team met in May in Beltsville, Maryland to finalize the charter and to discuss the mechanics of how the review board would function. At the meeting, Marilyn Holland and Dave Allardyce from the USDA Office of the Chief Information Officer (OCIO) provided comments on the draft charter and essentially concurred with the ARS approach. Based on their comments, ARS can expect its charter to be accepted by the OCIO. They also discussed the USDA's implementation of the IT Capital Planning and Investment Control program and the supporting computer program called the Information Technology Investment Portfolio System (I-TIPS). I-TIPS documents an agency's life cycle management of its IT systems from concept initiation through requirements analysis to operational evaluation.

Proposed Board

The proposed membership of the board is:

- Associate Administrator (Chair)
- Deputy Administrator, National Program Staff
- Deputy Administrator, Administrative and Financial Management
- Budget Officer, Budget and Program Management Staff
- Director, National Agricultural Library
- One Area Director selected by the Administrator
- Chief Information Officer (nonvoting Executive Secretary)

The board would meet quarterly in association with the meetings of the Administrator's Council. The CIO would support the board's activity by serving as executive secretary to the board.

Operational Procedures:

The USDA expectations are that ARS will implement and use the procedures outlined in the USDA Guide to Implementing Information Technology Capital Planning and Investment Control. It involves the three phases of selection, control, and evaluation. The guide provides a comprehensive process to evaluate the worthiness of a system for investment and development. A screening and scoring process enables the ranking projects for management decisions on projects to fund.

In addition to being a guide in selecting projects to initiate, the system provides a basis for tracking projects over their life cycle, documenting costs and benefits, and recording lessons learned in the project.

I-TIPS is designed to assist managers assess IT initiatives in terms of their costs, risks, and expected returns. It is a database of information describing individual IT projects. I-TIPS aggregates IT information into a system portfolio for the agency to use for decision making and for Departmental to exercise its oversight for cross cutting applications and to satisfy its responsibilities for overall accountability. An IT development project leader would enter system information into I-TIPS to eventually be passed upward through normal management channels for review by Area Office, National Program Staff, and other divisions before reaching the ITIRB.

Criteria for Projects to be Reviewed by Board:

Major IT system projects will be reviewed by the board. As described in the charter, these projects will include Mission Critical Systems, those that support core business activities or processes. Also, systems to be supported by the ARS High Priority Requirements List (HPRL) process involving information IT greater than \$1 million require ITIRB review. Those systems requiring a capital investment acquisition costs greater than \$15 million must be reviewed by the USDA EITIRB.

While only the very major projects will be reviewed by the ITIRB, ARS still is required ensure that all IT projects are well managed. Locations need to develop multi-year IT plans and begin to include future IT needs as a part their Annual Resource Management Plan (ARMP) submittal.

Issues and Concerns

The team also surfaced important related issues.

1. Concern surfaced about how the Department would influence ARS' IT investments. A "one-size-fits-all" approach should not be imposed on the agency given ARS' diverse

operation and the nature of research being on the cutting edge where new, risky ventures are routine.

Rationale: ARS has a wide and diverse information technology function. A critical component of the ARS mission is the use of information technology to generate, analyze, process, store, and disseminate original scientific information. The agency uses IT to conduct its essential administrative functions. It also uses extensive databases for program management. Effective management of the agency requires integration of the business functions with program functions. The agency produces information technology products in the form of computer software such as water quality models and expert systems to manage dairy herds. The end users of these products are other government agencies, producers, and others in the private sector. The agency maintains large scientific databases important to genetics research, for example. The principal users of this information are other scientists within and outside of ARS. The agency through the National Agricultural Library is the world's leading collector of agricultural literature and uses information technology to handle this literature and to make it available to users worldwide.

2. In addition, given this diversity, the CIO's role will be very important for coordinating the agency's information technology activities and supporting the operation of the ITIRB.
3. Care must be exercised in the management of information technology resources so that program activities are not hampered. In activities like development of mathematical computer models for use by other agencies, activities that are strictly related computer software design become closely integrated with research program activities. However, the importance of effective management of IT to produce quality software on time and within budget for research program activities should be recognized as a critical success factor.

Recommendation

Because of the dynamic requirements of ARS to support its research efforts, the team recommends that the ARS ITIRB actively solicit input from a representative cross section of the agency as it reviews proposals.